

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/107026 A1

(51) International Patent Classification⁷: **G01R 33/3415**

(21) International Application Number: **PCT/IB03/02201**

(22) International Filing Date: 10 June 2003 (10.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
102 26 488.0 14 June 2002 (14.06.2002) DE

(71) Applicant (for DE only): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]**; Stein-damm 94, 20099 Hamburg (DE).

(71) Applicant (for all designated States except DE, US): **KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]**; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LEUSSLER, Christoph, Günther [DE/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE). **BÖRNERT, Peter [DE/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE).

(74) Agent: **MEYER, Michael**; Philips Intellectual Property & Standards GmbH, Weiss hausstr. 2, 52066 Aachen (DE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 03/107026 A1

(54) Title: **MR DEVICE PROVIDED WITH DIFFERENTLY OPTIMIZED RF COIL ARRAYS**

(57) **Abstract:** The present invention relates to an MR device for MR imaging as well as to an RF coil system for such an MR device. In order to enable switching to and fro between different applications in such an MR device without having to move the patient so as to position a new RF coil system, it is proposed in accordance with the invention to provide the RF coil system for the transmission and/or reception of RF signals with at least two RF coil arrays which are integrated in one coil former and have been optimized for different applications, each RF coil array comprising at least two RF coils which are decoupled from one another.